

US006698333B2

(12) United States Patent Halliday et al.

(10) Patent No.: US 6,698,333 B2

(45) **Date of Patent:** Mar. 2, 2004

(54) CARTRIDGE FOR THE PREPARATION OF WHIPPED BEVERAGES

(75) Inventors: **Andrew M. Halliday**, Oxon (GB); **Howard S. Whitney**, Northampton

(GB)

(73) Assignee: Kraft Foods R & D Inc. (DE)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 10/216,157

(22) Filed: Aug. 8, 2002

(65) **Prior Publication Data**

US 2003/0033938 A1 Feb. 20, 2003

Related U.S. Application Data

(63) Continuation of application No. PCT/GB01/00505, filed on Feb. 8, 2001.

(30) Foreign Application Priority Data

Feb. 14, 2000 (GB) 0003355

(51) **Int. Cl.**⁷ **A47J 31/00**; B65D 81/34

(52) **U.S. Cl.** **99/295**; 99/323.1; 426/82;

(56) References Cited

U.S. PATENT DOCUMENTS

4,853,234 A * 8/1989 Bentley et al. 99/295 X

FOREIGN PATENT DOCUMENTS

EP 0449 533 10/1991 EP 0 638 486 2/1995

* cited by examiner

Primary Examiner—Reginald L. Alexander (74) Attorney, Agent, or Firm—Fitch, Even, Tabin & Flannery

(57) ABSTRACT

A cartridge containing one or more beverage ingredients and being formed from substantially air- and water-impermeable materials, the cartridge comprising an inlet for the introduction of an aqueous medium into the cartridge, a compartment containing the beverage ingredient or ingredients and an outlet for the beverage produced from the beverage ingredients, characterized in that the cartridge incorporates in the beverage flow path, prior to or at outlet, a device for producing a jet of the beverage, at least one inlet for air and a device to generate a pressure reduction of the jet of beverage, whereby in use air from the at least one air inlet is incorporated into the beverage as a plurality of small bubbles.

20 Claims, 6 Drawing Sheets

